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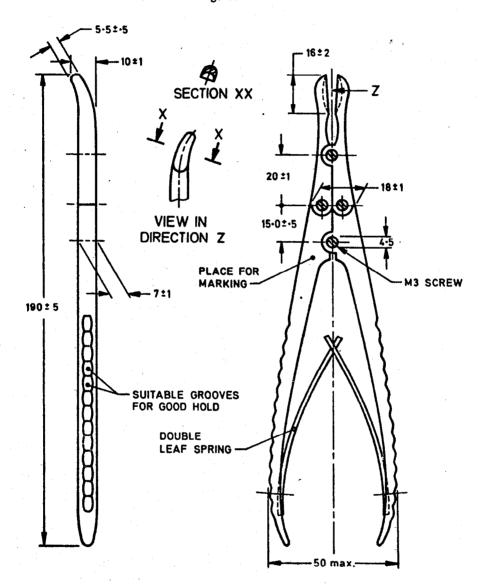


Indian Standard

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SPECIFICATION FOR RONGEUR, RUSKIN'S PATTERN

- 1. Scope Dimensional and other requirements for Ruskin's pattern rongeur used in orthopaedic surgery.
- 2. Shape and Dimensions As shown in Fig. 1.



All dimensions in millimetres.

FIG. 1 RONGEUR, RUSKIN'S PATTERN

3. Material

- 3.1 Arms and Double Leaf Spring Stainless steel conforming to Designation 40Cr13 of IS: 6603-1972 'Specification for stainless steel bars and flats'.
- 3.2 Screws Stainless steel conforming to Designation 20Cr13 of IS: 6603-1972.

Adopted 21 October 1974

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Gr 1

IS: 7435 - 1974

4. Workmanship

- 4.1 The forceps shall be free from rough edges, pits, burrs, cracks and grinding marks.
- 4.2 The cutting edges shall be sharp and uniform, and shall be free from nicks, waviness and jags.
- 4.3 When the jaws are closed, the cutting edges shall meet evenly throughout the length at one time.
- 4.4 The joints shall have no undue play.
- 4.5 The spring action shall be smooth. It shall be neither too hard nor too slack.
- 4.6 The compound action shall be smooth and free from jerks.
- 5. Heat Treatment The arms shall be hardened and tempered to 520 to 600 HV, the springs to 380 to 420 HV and the screws to 290 to 320 HV.
- 6. Finish The forceps shall be polished bright and passivated. The polishing shall be done in accordance with the choice of the consumer.

7. Tests

- 7.1 Performance Test—Cut a piece of rib of a fully grown goat or sheep five times with the instrument. Each time the instrument shall cut the rib evenly in one bite without any undue resistance, and cutting edges shall not show any sign of damage.
- 7.2 Load Closure Test Apply a compressive force of 15 ± 2 N at the ends of the handles. The cutting edges shall meet evenly throughout on the application of force.
- 7.3 Corrosion Resistance Test Scrub the instrument with soap and warm water, rinse in hot water and then dip in 95 percent ethyl alcohol. Dry the instrument, immerse in copper sulphate solution at room temperature for 6 minutes and wash with fresh water or wet cotton wool.

Composition of the copper sulphate solution shall be as follows:

Copper sulphate (CuSO ₄ ·5H ₂ O)	4·0 g
Sulphuric acid (H ₂ SO ₄) (sp gr 1·84)	10·0 g
Distilled water [see IS: 1070-1960 Specification for water, distilled quality (revised)]	90.0 ml

There shall be no red stains or spots on the instrument, but dulling of the polished surface may be permitted.

- 8. Marking The forceps shall be marked with the following:
 - a) Manufacturer's name, initials or recognized trade-mark; and
 - b) The letters 'SS' for stainless steel.
- 8.1 ISI Certification Marking Details available with the Indian Standards Institution.
- 9. Packing As agreed to between the purchaser and the supplier.